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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/000,094	12/04/2001	Kurt R. Dahlberg	053727-5001-US	8029
9629	7590	10/25/2004	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			NGUYEN, SON T	
			ART UNIT	PAPER NUMBER

3643

DATE MAILED: 10/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/000,094	Applicant(s) DAHLBERG ET AL.	
	Examiner Son T. Nguyen	Art Unit 3643	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 August 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-16 and 18-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-16, 18-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 112***

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. **Claims 18-27** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The formulas 7-10 in the claims need to be listed with ingredients of the formulas.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claims 1-7,36** are rejected under 35 U.S.C. 102(b) as being anticipated by Romaine et al. (US 4,803,800).

For claim 1, Romaine et al. disclose an enriched mushroom compost supplement comprising the addition of a polysaccharide to a mushroom compost supplement, wherein the enriched supplement does not comprise mushroom mycelia because it is a nutrient reserve that is added to the substrate (col. 9, lines 31-45, col. 10, lines 59-68).

For claim 2, since Romaine et al. employ polysaccharide in the supplement, the added polysaccharide will provides a significantly higher yield when compared to a supplement lacking the polysaccharide.

For claim 3, Romaine et al.'s polysaccharide is selected from cellulose, straw, starch, hemicellulose, etc. (col. 5, Table A, col. 9, lines 41-42).

For claim 4, the polysaccharide of Romaine et al. contains cellulose or cellulose-containing ingredients (col. 5, Table A, col. 9, line 41).

For claim 5, since Romaine's compost supplement contains the same ingredient as that of the present invention, the supplement of Romaine should dampens or suppresses temperature surges during spawn run just as well as that of the present invention.

For claim 6, Romaine et al. do not mentioned anything about an additional antimicrobial, therefore, Romaine's supplement does not require the antimicrobial.

For claim 7, since Romaine's compost supplement contains the same ingredient as that of the present invention, the supplement of Romaine should suppresses or reduces the growth of pest and pathogen microorganisms.

For claim 36, Romaine's cellulose have been treated (col. 5, Table A, the cellulose contains polymers such as ethyl succinylated, methyl, hydroxyethyl, etc. which means that the cellulose was treated with these polymers).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 3643

6. **Claims 8-16,18-35** are rejected under 35 U.S.C. 103(a) as being unpatentable over Romaine et al. (as above).

For claim 8, Romaine et al. teach a plurality of supplements which one can use (col. 9, lines 31-45), but they are silent about the supplement consisting solely of polysaccharides. It would have been obvious to one having ordinary skill in the art at the time the invention was made to use solely polysaccharides in the supplement of Romaine et al. depending on the required nutrient/supplement desired for the particular type of mushrooms. Note, Romaine et al. never stated that the supplement consisted of multiple substances mixed together. Romaine et al. merely gave a list of nutrient supplement (col. 9, lines 31-45) which one could use either solely or mixed together depending on the require nutrient desired.

For claims 9-16, Romaine et al. are silent about various quantities or proportions of polysaccharides to use. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various quantities or proportions of polysaccharides of Romaine et al., since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claims 18-27, Romaine et al. are silent about certain formulas and their quantities or proportions to be used in the supplement. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various formulas in the supplement of Romaine et al. depending on the required

Art Unit: 3643

nutrient/supplement desired for the particular type of mushrooms. In addition, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various quantities or proportions in the supplement of Romaine et al., since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved involves only routine skill in the art. In re Aller, 105 USPQ 233.

For claim 28, Romaine et al. disclose a method of increasing mushroom yield comprising the steps of adding an enriched supplement such as polysaccharides to a mushroom compost (see explanation for claim 1); allowing the development of the mushrooms (col. 4, line 22). However, Romaine et al. do not specifically teach harvesting the mature mushrooms. It is well known in the agriculture industry, esp. in mushrooms, that once a mushroom is fully developed, it is harvested. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate the step of harvesting the mature mushrooms in the method of Romaine et al. because it is notoriously well known in the art that when one grows mushrooms into fully mature mushrooms, one has to harvest the mushrooms for either sales or to provide space for other mushroom experimentation.

For claim 29, see explanation for claim 2.

For claim 30, Romaine et al.'s mushroom is a Basidiomycete (col. 28, Table XII).

For claim 31, Romaine et al.'s mushroom is a fleshy Basidiomycete (col. 28, Table XII).

For claim 32, et al.'s mushroom is selected from the group as claimed (col. 28, Table XII).

For claims 33-35, Romaine et al. disclose a method of supplementing a mushroom compost comprising the steps of adding an enriched supplement such as polysaccharides to a mushroom compost (see explanation for claim 1). However, Romaine et al. are silent about various quantities or proportions of polysaccharides to use. It would have been obvious to one having ordinary skill in the art at the time the invention was made to employ various quantities or proportions of polysaccharides of Romaine et al., since it has been held that where routine testing and general experimental conditions are present, discovering the optimum or workable ranges until the desired effect is achieved.

### ***Response to Arguments***

7. Applicant's arguments filed 8/9/04 have been fully considered but they are not persuasive.

**Applicant argued that the Romaine et al. patent contains mushroom mycelia in the compost supplement, while Applicant's invention does not contain mycelia in the enriched mushroom compost supplement.**

Col. 9, lines 30-45 of Romaine et al. state that polysaccharide or its composition are added to the substrate as a nutrient reserve, and this polysaccharide supplement doesn't contain mycelia. It is the substrate, as a whole, that contains the mycelia but not the enriched supplement polysaccharide. As Applicant explained, the supplement is equivalent of a plant fertilizer, which polysaccharide is a supplement that does not

contain mycelia. Mycelia is added or grow on the surface of the substrate containing the supplement polysaccharide and not actually in the polysaccharide (col. 4, lines 47-65). The supplement of Applicant works in the same way as Romaine et al. because it will be added to a substrate where on the surface of the substrate, mycelia is added and not in the actual polysaccharide. Clearly from col. 9, lines 30-35 of Romaine et al. that the polysaccharide does not contain mycelia. It is a nutrient/supplement/fertilizer that is added to the substrate which on the surface of the substrate is where the mycelia is added.


The mushroom compost supplement, in Romaine's case, is the nutrient reserve within the gel matrix (col. 9, lines 30-35) and this nutrient reserve is being enriched with addition of polysaccharide (col. 9, line 35). The whole gel matrix contains the mushroom mycelia but not the nutrient reserve.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son T. Nguyen whose telephone number is 703-305-0765. The examiner can normally be reached on Mon-Fri from 9:00 to 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter M. Poon can be reached on 703-308-2574. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.



Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Son T. Nguyen  
Primary Examiner  
Art Unit 3643

stn